

[ft, feet; gpm, gallons per minute; thickness data from geologic logs of production wells in New Haven on file at the Missouri Department of Natural Resources, Geological Survey and Resource Assessment and from Starbuck (in press)]				
System	Formation	Approximate thickness (ft)	General lithology	General hydrologic properties
Ordovician	St. Peter Sandstone	less than 40	Fine-grained cemented quartz sandstone.	Yields of 10 to 50 gpm where moderately thick.
	Powell Dolomite	0 to 95	Difficult to differentiate. Crystalline cherty dolostone with abundant thin shale partings and occasional thin sandstone beds. Thicker (2 to 10 ft thick) sandstone beds in Cotter.	Adequate for small domestic supply. Yields of 5 to 15 gpm locally. Less permeable than surrounding units and impedes downward water movement.
	Cotter Dolomite	85 to 300		
	Jefferson City Dolomite	150 to 165		
	Roubidoux Formation	110 to 120	Cherty, sandy dolostone. Middle 20 to 30 ft is clean sandstone.	Normal yields of 15 to 50 gpm. Target unit for newer domestic wells.
	upper Gasconade Dolomite	35 to 50	Massively bedded, crystalline dolostone.	Lower permeability than surrounding units.
	lower Gasconade Dolomite	200 to 240	Cherty dolostone with massive chert beds.	Combined yields of upper and lower units range from 50 to 75 gpm.
	Gunter Sandstone Member of Gasconade Dolomite	35 to 50	Dolostone with less than 10 percent sand.	Normal yield of 40 to 50 gpm, but 200 to 500 gpm locally.
Cambrian	Eminence Dolomite	145 to 180	Crystalline dolostone with less than 5 percent chert and sand.	Yields of 75 to 250 gpm.
	Potosi Dolomite	greater than 170	Crystalline dolostone with abundant small solution cavities and quartz druse.	Target zone of most high capacity wells. Yields 200 to 1,000 gpm.

Modified from Miller and Vandike (1997).

Figure 1-10. Geologic units of the Ozark aquifer in the vicinity of New Haven, Missouri.